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TRANSMISSION TYPE DISPLAY ELEMENT

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ABSTRACT

PURPOSE: To concentrate the incident light from a base side on each picture element and to obtain a bright transmission type display element by working a patterned transparent resin layer to a lens shape and providing a micro-lens array to the rear of the transparent base in accordance with the picture elements of the display element.

CONSTITUTION: A transparent photosensitive resin of phenol, etc. is thinly coated on the surface of one transparent substrate 1 of a thin and photodetection type display element, for example, a liquid crystal display element, on the side opposite to a liquid crystal 10 and is cured by the UV rays exposed thereto and is heated to the glass transition temperature of the resin or above to smooth the surface, by which the resin is securely adhered to the substrate 1. The same photosensitive resin is then coated thereon and is patterned by the UV rays irradiated thereon and at the same time, the resin is heated to the glass transition temperature or above to generate "sagging down" in the striped edge part so that the resin is worked to a micro-semicircular cylindrical lens 11. The lens may be also formed as a semispherical micro-array. The incident light from the substrate 1 side is thus condensed on each picture element electrode 5 and a color filter 8 provided to the other transparent substrate 6, by which the liquid crystal display element brighter than the conventional element is obtained
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